

Reply to Office Action dated July 9, 2008

REMARKS

Claims 1-12, 15-19, 23 and 25-27 are pending in this application. By this Amendment, claims 1, 3, 11, 19, 23 and 25 are amended. Various amendments are made for clarity and are unrelated to issues of patentability.

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (1) place the application in condition for allowance; (2) do not raise any new issues requiring further search and/or consideration; and/or (3) place the application in better form for appeal, should an appeal be necessary. More specifically, the above amendments are merely for clarity of previously claimed subject matter. Entry is thus proper under 37 C.F.R. §1.116.

The Office Action rejects the claims under 35 U.S.C. §103(a) over U.S. Patent Publication 2004/0185899 to Hayem et al. (hereafter Hayem) or under 35 U.S.C. §103(a) over U.S. Patent Publication 2003/0103518 to Han either alone or in combination with Hayem, U.S. Patent Publication 2003/0081666 to Nah, KR 2003-084005 to Lee (hereafter Lee) and/or EP 1 213 941 to Park et al. (hereafter Park). The rejections are respectfully traversed with respect to the pending claims.

Independent claim 1 recites a video chip having an application of packet data services and a first data communication protocol and a second data communication protocol, a first network modem chip coupled to the video chip through a Universal Asynchronous Receiver Transmitter (UART) interface and having a protocol stack relating to a first communication network, the first network modem chip to provide Point to Point Protocol (PPP) packets across the UART interface to the video chip, and a second network modem chip coupled with the video chip

through an interface and having a protocol stack relating to a second communication network. Independent claim 1 also recites that the first data communication protocol of the video chip converts the Point to Point Protocol (PPP) packets received from the first network modem chip into Internet Protocol (IP) packets for the video chip, and the first data communication protocol of the video chip converts IP packets in the video chip into PPP packets for the first network modem chip.

The applied references do not teach or suggest at least these features of independent claim 1. More specifically, Han does not suggest to a first network modem chip as recited in independent claim 1. The Office Action broadly cites Han's physical layer 101 and Hayem's FIG. 10, box 1010 as teaching the first network modem chip. However, the combination still does not teach or suggest the claimed features.

Independent claim 1 specifically relates to a relationship of a video chip, a first network modem chip and a second network modem chip. The Office Action relies on Han's FIG. 1 showing of different layers and combines Han with FIG. 10 of Hayem without any basis to show how the video chip, a first network modem chip and a second network modem chip are provided. There is no teaching in Han or Hayem for the first network modem chip coupled to the video chip through a Universal Asynchronous Receiver Transmitter (UART) interface and having a protocol stack relating to a first communication network and the first network modem chip to provide Point to Point Protocol (PPP) packets across the UART interface to the video chip. Nah does not teach or suggest these specific features of PDP packets across the UART

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interface and/or the first network modem chip coupled to the video chip through the UART interface.

Further, Han, Hayem and Nah also do not teach or suggest the first data communication protocol of the video chip converts the Point to Point Protocol (PPP) packets received from the first network modem chip into Internet Protocol (IP) packets for the video chip, and the first data communication protocol of the video chip converts IP packets in the video chip into PPP packets for the first network modem chip.

For at least these reasons, Han, Hayem and Nah do not teach or suggest all the features of independent claim 1. The other applied references do not teach or suggest the missing features of independent claim 1. Thus, independent claim 1 defines patentable subject matter.

Independent claim 11 recites that the terminal performing packet data communication with the second communication network includes: directly providing a packet to a second network modem from the video chip when a packet is transmitted from the terminal to the second communication network in packet data communication, and receiving an IP frame at the video chip through the second network modem, the video chip performing packet processing and interworking with a socket when a packet is transmitted from the second communication network to the terminal. Independent claim 11 further recites that the terminal performing packet processing by using the first data communication protocol includes: converting an Internet Protocol (IP) packet to a Point to Point Protocol (PPP) packet in the video chip, converting the PPP packet into a PPP frame and providing the PPP frame across a Universal Asynchronous Receiver Transmitter (UART) interface to a first network modem when a packet

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is transmitted from the terminal and across the UART interface to the first communication network in packet data communication, and receiving a PPP frame at the video chip from the first network modem, converting the received PPP frame into an IP frame at the video chip, and performing packet processing and interworking with a socket when a packet is transmitted from the first communication network and across the UART interface to the terminal.

For at least similar reasons, Han, Hayem, Nah and the other applied references do not teach or suggest these specific features. More specifically, the applied references do not teach or suggest a specific relationship relating to a UART interface, a video chip, a first network modem and a second network modem. Thus, the applied references do not teach or suggest all the features of independent claim 11. Thus, independent claim 11 defines patentable subject matter.

Independent claim 19 recites judging a system mode by using a terminal including a video chip having a first data communication protocol and a second data communication protocol, and transmitting packet data across a Universal Asynchronous Receiver Transmitter (UART) interface and across a first network modem chip to a first network when the judged system mode is a first communication service for the first network, the transmitting including performing Internet Protocol (IP) packet processing at the video chip with the first data communication protocol and performing mutual conversion of IP packet and Point to Point Protocol (PPP) packets at the video chip only when in communication with the first network. Independent claim 19 also recites transmitting a pertinent Internet Protocol (IP) frame across a second network modem chip to a second network by transmitting the IP packet directly to the

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second network modem chip when the system mode is a second communication service for the second network.

For at least the reasons set forth above, Han, Hayem, Nah and the other applied references do not teach or suggest at least these features of independent claim 19. More specifically, Han, Hayem and Nah do not teach or suggest transmitting packet data across a Universal Asynchronous Receiver Transmitter (UART) interface and across a first network modem chip to a first network when the judged system mode is a first communication service for the first network, in combination with transmitting a pertinent Internet Protocol (IP) frame across a second network modem chip to a second network by transmitting the IP packet directly to the second network modem chip when the system mode is a second communication service for the second network. Thus, independent claim 19 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 11 and 19 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-12, 15-19, 23 and 25-27 are earnestly solicited. If the Examiner believes that any additional changes would place the

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application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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